

AMENDMENTS TO THE CLAIMS

1-3 (Canceled).

4 (Currently amended). ~~The~~ An intravascular blood pump system comprising: of Claim 3
~~and further,~~

an intravascular blood pump having a cannula coupled thereto, said intravascular blood pump including a rotor, a shroud for receiving said rotor, and a drive cable coupled to said rotor for driving said rotor within said shroud, said cannula being coupled to said shroud of said intravascular blood pump, and

a guide mechanism adapted to guide said intravascular blood pump and cannula to a predetermined location within the circulatory system of a patient, wherein said guide mechanism comprises a guide catheter coupled to said shroud.

5 (Original). The intravascular blood pump system of Claim 4 and further, wherein said guide catheter may be used to guide said shroud and cannula to said predetermined location within the circulatory system of said patient, after which point said rotor and drive cable of said intravascular blood pump may be docked within said shroud for pump operation.

6 (Currently amended). ~~The~~ An intravascular blood pump system comprising: of Claim 2
~~and further,~~

an intravascular blood pump having a cannula coupled thereto, said intravascular blood pump including a rotor, a shroud for receiving said rotor, and a drive cable coupled to said rotor for driving said rotor within said shroud, and

a guide mechanism adapted to guide said intravascular blood pump and cannula to a predetermined location within the circulatory system of a patient,

wherein a drive cable sheath is provided having a central lumen for receiving said drive cable, and

wherein a purge fluid delivery system is coupled to said drive cable sheath to deliver purge fluid to said rotor.

7 (Original). The intravascular blood pump system of Claim 6 and further, wherein said drive cable sheath includes at least one side lumen for delivering said purge fluid towards said rotor.

8 (Original). The intravascular blood pump system of Claim 7 and further, wherein a portion of said purge fluid is delivered through said at least one side lumen and past said rotor, and a portion of purge fluid is rerouted back from said rotor through said central lumen of said drive cable.

9 (Original). The intravascular blood pump system of Claim 4 and further, wherein a perfusion assembly is provided communicatively coupled to said guide catheter for selectively rerouting blood from within said guide catheter to a point downstream from the introduction site of said guide catheter into the vasculature of said patient.

10 (Original). The intravascular blood pump system of Claim 9 and further, wherein said perfusion assembly includes a first conduit communicatively coupled to said guide catheter, a second conduit dimensioned to be introduced into the vasculature of the patient, and a selectively operable valve disposed in between said first conduit and said second conduit.

11 (Currently amended). ~~The An~~ intravascular blood pump system comprising: of Claim 4 and further,

an intravascular blood pump having a cannula coupled thereto,

a guide mechanism adapted to guide said intravascular blood pump and cannula to a predetermined location within the circulatory system of a patient, and

including a blood pressure detection mechanism to detect the pressure of the blood proximate at least one of the intravascular blood pump and cannula.

12 (Original). The intravascular blood pump system of Claim 11 and further, wherein said blood pressure detection mechanism comprises at least one of fluid filled column disposed within at least a portion of said cannula, a piezoelectric element coupled to at least one of the intravascular blood pump and cannula, and a strain gauge coupled to at least one of the intravascular blood pump and cannula.

13 (Original). The intravascular blood pump system of Claim 11 and further, wherein said blood pressure detection mechanism involves calculating blood pressure based on the relationship between the torque and motor current of a motor used to drive said rotor.

14 (Currently amended). The intravascular blood pump system of Claim 4 6 and further, wherein said guide mechanism comprises a guide element disposed at least partially within said cannula.

15 (Original). The intravascular blood pump system of Claim 14 and further, wherein said guide element comprises a guide wire for passage through a side lumen formed in said cannula.

16 (Original). The intravascular blood pump system of Claim 14 and further, wherein said guide element comprises a selectively deformable element disposed at least partially within said cannula.

17 (Original). The intravascular blood pump system of Claim 15 and further, wherein said intravascular blood pump and cannula may be selectively advanced to said predetermined location within the vasculature of the patient by first passing said guide wire to said predetermined location and thereafter sliding said intravascular blood pump and cannula along said guide wire to said predetermined location.

18 (Currently amended). ~~The~~ An intravascular blood pump system comprising: ~~of Claim 2 and further,~~

an intravascular blood pump having a cannula coupled thereto, said intravascular blood pump including a rotor, a shroud for receiving said rotor, and a drive cable coupled to said rotor for driving said rotor within said shroud, and

a guide mechanism adapted to guide said intravascular blood pump and cannula to a predetermined location within the circulatory system of a patient,

~~wherein~~ said guide element ~~comprises~~ comprising a guide wire for passage through a lumen extending through said drive cable and rotor.

19 (Original). The intravascular blood pump system of Claim 18 and further, wherein said intravascular blood pump and cannula may be selectively advanced to said predetermined location within the vasculature of the patient by first passing said guide wire to said predetermined location and thereafter sliding said intravascular blood pump and cannula along said guide wire to said predetermine location.

20 (Original). The intravascular blood pump system of Claim 4 and further, wherein said guide mechanism further includes guide element for passage through the guide catheter to facilitate placement of said shroud and said cannula at said predetermined location within the vasculature of the patient.

21 (Original). The intravascular blood pump system of Claim 20 and further, wherein said guide element comprises at least one of a guide wire and a balloon catheter.

22 (Original). The intravascular blood pump system of Claim 4 and further, wherein said guide mechanism further includes a guide element for passage through a side lumen formed along at least a portion of said guide catheter.

23 (Original). The intravascular blood pump system of Claim 22 and further, wherein said guide element comprises at least one of a guide wire and a balloon catheter.